

# SCIENCE & GOVERNMENT REPORT

The Independent Bulletin of Science Policy

Vol. VI, No. 10

P.O. Box 6226A, Washington, D.C. 20015

June 1, 1976

## HEW Drug Panel Produces a Splendid Muddle

If HEW Secretary David Mathews marches into the next meeting of the Department's Review Panel on New Drug Regulation and disperses the membership with a high-pressure hose, he would probably be exonerated on grounds of excessive provocation. If he doesn't do something to rid himself of that 7-member body of contentious metaphysicians, he should be brought up on charges of dereliction of duty.

The Panel, it may be recalled, was established by Mathews' predecessor in February, 1975, after 14 past and present employees and consultants of the Food and Drug Administration told a hearing chaired by Senator Kennedy that the pharmaceutical industry exercised improper influence over FDA. Basically, they charged that

their decisions favorable to industry were automatically endorsed by FDA superiors, but that unfavorable decisions were almost always reversed and frequently were followed by retaliatory action against them.

FDA Commissioner Alexander Schmidt responded by ordering an internal investigation of "each and every allegation in a sober, open and fair manner."

Apart from Schmidt's inquiry, the Review Panel, chaired by Thomas Chalmers, president of Mt. Sinai Medical Center, New York, was assigned to make an overall assessment of FDA's procedures for certifying new drugs, and also to review the Commissioner's investigation.

Schmidt's report, a 906-page production that cost \$196,000, came out last November under the title of *Commissioner's Report* (SGR Vol. V, No. 20), and, in the Commissioner's opinion, reflected an investigation that "has not only revealed no evidence to support such general charges; it has produced evidence to refute those

(Continued on Page 2)

### House Hits "Secular Humanism"

Rep. John Conlon, the Arizona Republican who has ravaged the National Science Foundation for its support of curriculum studies in the social sciences, has scored again. This time his target was the "religion of secular humanism," against which, whatever it may be, his House colleagues adopted a Conlon amendment, 222-174, on May 12.

The amendment, which applies to a section of the National Defense Education Act (NDEA), is necessary, Conlon argued, "so that no preference be granted to the religion of secular humanism over the Judiac-Christian viewpoint." The existence of a danger, he explained, can be inferred from a recent issue of *Humanist Magazine* "which brags that 'humanism is alive and thriving in secondary schools.'"

Rep. James G. O'Hara (D-Mich.), the only member present who tangled with Conlon on the issue, said, "I suppose it does not make any difference whether the amendment goes in or the amendment does not go in. There will not be any 'teaching of secular humanism' under this section (of the bill) one way or the other. I just think we are making ourselves look like a bunch of monkeys if we go on treating amendments like this seriously and adopting them in bills with which they have nothing to do."

As for how the menace is to be recognized, the closest Conlon came to providing a clue was an assertion that "Secular humanism declares that there is no God, that man is his own God."

### In Brief

The Senate is going to pay the legal fees for Senator William Proxmire and a staff assistant who have been named in a \$6-million suit by a Michigan psychologist who says they libeled him last year in charging wastefulness to three federal agencies that supported his research (SGR Vol. VI, No. 8). Proxmire opted for a private lawyer and Senate money rather than accept a Justice Department offer to provide legal assistance. A reply to the suit is due to be filed in Federal District Court, Madison, Wisc., by June 10.

English continues to expand as the international language of science, according to *Chemical Abstracts Service*, which abstracts some 12,000 journals from around the world. Last year, 59.7 per cent of all abstracted chemistry papers were in English, compared with 52 percent in 1965. During that period, decreases occurred in the use of German, French, Japanese, and Italian. Sixty per cent of the papers originating in Japan were not in Japanese. Half of the 6.8 million papers abstracted since 1907 were published in the last 10 years.

Widespread speculation that NSF Director H. Guyford Stever may be appointed presidential science adviser has inspired the remark that his reassignment from NSF to the White House would raise the intellectual level of both places.

## ...Study Calls for Conducting Another Study

(Continued from Page 1)

charges — evidence long available." Obviously pleased with the verdict of an investigation that he had conducted into charges against his own agency, Schmidt said of the report, "While long, it is easily read, and I judge, holds one's interest well."

Six days after Schmidt issued his report, Chalmer's Panel, on the basis of drafts that it had reviewed, issued a statement that said, in part, "The Panel's current judgment is that the Commissioner's investigation did not obtain information essential to resolve a significant number of important allegations."

A few weeks later, HEW Secretary Mathews asked the Panel to "determine whether there is any truth to the allegations" that the dissident FDA group had made at Kennedy's hearings. "These allegations have now been outstanding for well over a year," Mathews wrote, "and I believe it is most desirable to achieve their ultimate resolution as promptly as possible."

The document that was supposed to embody that "ultimate resolution" was issued by the Panel last month, under the title of *Assessment of the Commissioner's Report of October 1975*. It resolves nothing, though it fills 383 pages, and cost \$140,000.

With Chairman Chalmers in violent dissent, 6 of the 7 Panel members endorsed a statement that concludes that Schmidt's "Report must be considered inadequate to support the broad conclusions reached by the Commissioner. The Panel has therefore recommended to the Secretary that he authorize the Panel to select an independent investigator and staff to reinvestigate four sets of important unresolved allegations" (see box).

Chalmers dissented from the adverse assessment of Schmidt's report — mainly on the grounds that the charges were disproved, ancient and irrelevant to the current performance of FDA — and opposed the recommendation for still another investigation.

To confuse the matter further, another member of the Panel, Norman Weiner, chairman of the pharmacology department at the University of Colorado Medical Center, offered a "comment" on Chairman Chalmer's dissent.

The Chairman's statement, he said, "is substantively accurate," but "it misinterprets many of the analyses

*Four groups of allegations concerning alleged FDA bias toward industry were recommended for re-investigation by the HEW Review Panel on New Drug Regulation. They are:*

1. That industry pressure resulted in FDA consultants being exposed "prematurely" to the sponsors of drugs; consultants received inadequate staff support from FDA; and medical officers in charge of reviewing specific drugs were excluded from FDA meetings attended by the manufacturers.

2. That a medical officer "was improperly removed from drug reviews because of his medical opinions and that he was improperly transferred from his division."

3. That "FDA irresponsibly responded to pressure by physicians dispensing 'diet pills' when it failed to relabel the pills and when it refused to issue a public warning against them, as recommended by an advisory committee."

4. Various FDA employees were transferred or removed from regularly assigned duties "for improper purposes."

and conclusions in the Panel's report." Weiner added: "When a committee composed of seven individuals of diverse backgrounds undertakes such a task, one can safely assume that the final product represents a compromise of many different views in the sections. It is commonly stated that a 'camel has the appearance of an animal put together by a committee.' This report has the attributes of a camel. I, and I daresay all of the Panel members, feel that certain passages do not wholly represent each individual's point of view. On balance, however, I believe that the Panel's *Assessment of the Commissioner's Report* is fair and objective and that the conclusions are justified."

Appended to this discourse on zoology is a footnote bearing the names of two other Panel members, Allen V. Astin, director emeritus of the National Bureau of Standards, and David P. Rall, director of the National Institute of Environmental Health Sciences. The footnote states that they "have concurred in this (Weiner's)

(Continued on Page 3)

### Science & Government Report © 1976

Contributing Editors

Colin Norman, Pamela Moore

Editor and Publisher

Daniel S. Greenberg

Circulation Manager

Alice Anne Freund

Independently published by *Science & Government Report, Inc.*, twice monthly, except once each in January, July and August. Annual subscription: Institutions, \$65 (two years, \$120); individuals, \$44 (two years, \$75). Editorial offices at 3736 Kanawha St., N.W., Washington, DC 20015. Tel. (202) 244-4135. Second class postage paid at Washington, DC. Please address all subscription correspondence to Box 6226A, Northwest Station, Washington, DC 20015. Reproduction without permission is prohibited. SGR is available on Xerox University Microfilms.

## Space Telescope Gains Support in Congress

Following a write-in campaign described by one NASA official as "unbelievable," astronomers have wrung from Congress a strong expression of support, but no hard cash, for the Large Space Telescope (LST). The most expensive and, according to astronomers, the most important single optical telescope planned, the LST was to have got underway in earnest in FY 1977, but the Office of Management and Budget removed all funds for the instrument from NASA's budget just before it went up to Congress.

The write-in campaign, backed by a strong statement of support from an international gathering of scientists,

persuaded the House to approve \$3 million for LST earlier this year (SGR Vol. VI, No. 6) but the Senate failed to follow suit. A conference report, approved last week, however, recognizes "the significance of the Space Telescope to ongoing research in astronomy" and agrees "that initiation of this project has the highest priority in the space science program." But the report merely directed NASA to proceed with its planning for the mission "subject to the availability of appropriations."

The bill did, however, add \$500,000 to NASA's general budget for physics and astronomy, to be spent on activities "to help assure the viability of future research," and most of that money, if appropriated, would probably end up in support of LST planning.

NASA hopes to get sufficient funds next year to begin building the instrument for launch by the shuttle in the early 1980s. But officials note that OMB had promised the money for FY 1977, and since the LST launch is not tied to a specific date, unlike many planetary missions, OMB may well let it slide for another year.

### **Bad Marks for Schmidt's Case**

*Following are some of the major points that the HEW Review Panel on New Drug Regulation made in its study of FDA Commissioner Alexander Schmidt's examination of charges of industry bias and maltreatment of employees in his agency:*

- "The Commissioner's decision to conduct his own investigation was ill-advised. The gravest problem of self-investigation is the credibility of the final product, and the Commissioner's Report suffers in this regard."

- "The Commissioner's investigation adequately answered some allegations of undue industry influence," but his finding of "'no industry domination of the Bureau of Drugs or industry protection by the Bureau or the Agency' . . . is unwarranted because other important allegations of undue influence were not rebutted."

- "The Commissioner indicated he 'did not discover a bias toward drug approvals.' This conclusion is unacceptable because the Commissioner had a responsibility to produce additional evidence (that) might have been obtainable from the records within the Commissioner's possession."

- "The Commissioner concluded there 'was no deliberate misuse of advisory committees.' . . . If the Commissioner meant no 'improper' use, which is the nature of the complaints, the record is insufficient to support such a judgment."

- "The record does not support the Commissioner's conclusion in his report that medical officers were not removed from drug reviews because of their medical views."

- The Commissioner "assumed the high burden of proof attendant upon any internal investigation. This burden has not been met for a number of important allegations."

### **FDA (Continued from Page 2)**

statement and have joined Dr. Weiner in signing the report of the panel."

Three lawyers serving on the panel signed the final report without written comment — Norman Dorsen, professor of law, New York University; Marsha N. Cohen, attorney at law, and Robert Hamilton, professor of law, University of Texas.

Mathews has not yet replied to the recommendation for a reinvestigation. But as things now stand — 21 months after the allegations were made to Kennedy — there is a report on FDA in which the FDA Commissioner exonerates his agency, and there is a split decision on an assessment of that report, plus a recommendation for setting up a new staff to re-examine the old charges. Still to come is the Panel's report on its main assignment — a review of FDA procedures for examining and approving new drugs; the exercise devoted to *Commissioner's Report* was a digression from the main task.

—DSG

### **Hearings on Biomedical Study**

Senator Kennedy's Health Subcommittee will hold hearings June 16-17 on the recently issued report of the President's Biomedical Research Panel (SGR Vol. VI, No. 9). Witnesses will include the 7-member panel, and government health officials.



## Nuclear Proliferation: Safety versus Profits...

During the past few weeks, there has been a flurry of legislative activity, public statements and diplomatic exchanges all aimed at seeking ways to prevent peaceful nuclear exports from being diverted to the production of atomic bombs. The various moves, which range from the innocuous to the absurd, are mostly intended to influence the outcome of secret talks, expected to resume in London later this month, between the major nuclear exporting nations.

Beneath the bombast and the search for acceptable safeguards against the misuse of nuclear technology lies a difficult question. How can the United States exploit its dominance of international nuclear trade—especially trade in nuclear fuel—to curb weapons proliferation without either deterring potential buyers from dealing with American firms, or alienating other exporting countries?

Though the Administration's policies are confused, and those emerging on Capitol Hill are even more muddled, they have at least some common threads. First, they assume that the most effective way to curb weapons proliferation, at least in the short term, would be a strong alliance among nuclear exporters, resulting in strict safeguards being built into every nuclear transaction. And second, the United States should try to prevent deals involving the sale of uranium enrichment or fuel reprocessing plants to countries which do not already possess nuclear weapons.

For those reasons, the conference of exporting countries could be crucial to immediate hopes for curbing the spread of nuclear weapons. The talks due to open this month will be an extension of discussions which ended last January with what Secretary of State Henry Kissinger has described as "a general understanding about restraint." The next round, Kissinger hoped, will "produce something more binding." In other words, the talks will determine whether nuclear exporters are prepared to agree to a firm commitment on safeguards, or simply carry on doing business more or less as usual.

The talks will be held in secret, largely at the insistence of France, which threatened to pull out if their substance is made public, and US officials are thus reluctant to discuss the prospects in any detail. Nevertheless, there are good reasons not to expect anything really substantial to emerge, and there are also good reasons to believe that even the strictest safeguards are far from foolproof.

The first round of talks, according to Administration sources and sundry published reports, resulted in a general agreement that exporters would insist on promises from recipients of nuclear technology not to use their purchases to make explosives, and an under-

### Dr. Handler, Meet Dr. Handler

*The following comments by Philip Handler, President of the National Academy of Sciences, refer to The Brain Bank of America (McGraw Hill, 1975), a study of the NAS by Philip Boffey (SGR, Vol. V, No. 12).*

The "book is a very careful analysis of our defects. It should not be taken lightly. . . Its purpose was to see where the flaws were, to find skeletons in the closet. You mustn't be troubled by it when you don't find a sense of balance. That wasn't the purpose. . . I hope that many of you will indeed find the opportunity to read at least the final chapter of Mr. Boffey's book, which he calls *The Brain Bank of America*. That's flattering. It's the only thing that's flattering."

*April 22, 1975, address to the annual meeting of the NAS.*

We have had considerable attention in the press this year. It began with the Boffey book, of which the less said the better . . .

*April 27, 1976, address to the annual meeting of the NAS.*

standing that all deals would include some safeguards against misuse of the technology. But they failed to place strict limitations on the sale of uranium enrichment or fuel reprocessing plants to individual nations.

The United States, in fact, failed to discourage a proposed deal between West Germany and Brazil involving the sale of a complete nuclear fuel cycle—from uranium exploration to fuel reprocessing—and it failed to stop another agreement between France and Pakistan involving the sale of a reprocessing plant. A third transaction, the sale by France of a reprocessing plant to South Korea, was aborted earlier this year, however, when South Korea pulled out under American pressure.

Those deals suddenly put international nuclear trade on an entirely new level, since enrichment and reprocessing plants offer the key technologies for producing weapons-grade nuclear materials. Atomic reactors alone present less of a proliferation problem, since they are fueled with uranium which cannot be used for explosives without further enrichment, and spent nuclear fuel could be used for weapons production only if the pluto-

*(Continued on Page 5)*

## ...US Industry Pressing for Foreign Markets

*(Continued from Page 4)*

nium could be separated from it. Thus, safeguards on reactor sales usually involve monitoring the fuel entering and leaving the facility, and a requirement that it be enriched and reprocessed outside the purchasing country.

The United States failed to get agreement outlawing sales of enrichment and reprocessing technology for a variety of reasons, chief of which is simple commercial competition. Because American nuclear corporations so dominate the market, the Germans and the French have found it useful to include fuel plants as "sweeteners" in their reactor deals. For their part, they insist that if the enrichment and reprocessing facilities are also safeguarded, they are unlikely to be misused.

The American argument is simply that reprocessing is uneconomical at present, and there is no reason for plutonium to be removed from spent fuel rods, except to make explosives. Fred Ikle, Director of the Arms Control and Disarmament Agency (ACDA), noted in a speech delivered May 13 at the United Nations, for example, that reprocessing "is not guaranteed to save money. But it is guaranteed to accumulate thousands of pounds of plutonium at the reprocessing plants, in transit, and in storage." He added: "Before we take the plunge into a plutonium fuel economy, let us look very closely at the risks and our ability to control them."

Ikle made it clear at the end of his speech that he was speaking for the Ford Administration. But the only problem with that attitude is that it is being undermined by the US nuclear industry, which is clamoring to be allowed to reprocess spent fuel in the United States and to recycle plutonium. The argument that recycling is uneconomic therefore looks very suspicious when viewed from Paris or Bonn. Similarly, the United States' argument against selling enrichment technology looks to Europeans like an attempt to protect American dominance of the fuel market.

Thus, if commercial motives continue to prevent agreement outlawing the sale of fuel plants, the United States will argue that, instead of selling such plants to individual nations, they should be placed under multinational ownership and control, so that they can be very closely monitored. So far, those suggestions have not prevailed, but they have not been rejected entirely, according to Administration sources.

The Administration's arguments in the upcoming nuclear exporters' talks are likely to be given additional weight by a number of moves on Capitol Hill. The most important of them is an amendment to the Foreign Aid Bill, proposed by Senator Stuart Symington (D-Mo.) and already approved by the Senate Committee on Foreign Relations.

The amendment would shut off American military and economic assistance to countries buying or selling enrichment or reprocessing facilities unless those facilities are placed under "multinational auspices and management," and unless the purchaser agrees to place all its nuclear fuel and facilities under safeguards administered by the International Atomic Energy Agency (IAEA).

If approved—the House version of the bill contains no such provision—the amendment would clearly apply to Pakistan and Brazil if those countries purchase fuel enrichment and reprocessing plants.

A bill approved on May 13 by the Senate Committee on Government Operations is also likely to influence the talks. The measure, which is essentially designed to consolidate responsibility for licensing all nuclear exports in the Nuclear Regulatory Commission (NRC), directs the Administration to seek agreement with other nuclear exporters to provide cooperative enrichment and reprocessing services, and a prohibition on the transfer of such technology to individual nations. It also directs the Administration to negotiate an agreement which would prohibit the transfer of any nuclear technology or equipment unless the purchaser agrees to place all its nuclear activities under IAEA safeguards, including those already in operation.

In addition, Senator Abraham Ribicoff (D-Conn.),

*(Continued on Page 6)*

### **House Urges New Test Ban**

Virtually unnoted by the general press, the House of Representatives passed a resolution May 3 calling on the Administration to press ahead with negotiations for a number of arms control measures, including "a comprehensive agreement ending underground nuclear explosions under adequate verification." Introduced by Rep. Clement J. Zablocki (D-Wisc.), chairman of the Foreign Affairs subcommittee on International Security and Scientific Affairs, the resolution was passed with no recorded dissent.

Rep. Jonathan B. Bingham (D-N.Y.), noted in debate on the measure that though verification of a test ban agreement has always been a stumbling block in negotiations, advances in seismic identification techniques have removed much of the problem. It is now possible, he said, to identify explosions as small as 5 kilotons, and the recently negotiated threshold test ban is therefore "inadequate."

## Academic Groups Rally Against NSF Fund Cut

On April 29, a House appropriations subcommittee snipped \$56 million from the budget that President Ford proposed for the National Science Foundation for next year, and directed that the money come out of a big boost that was planned for basic research programs.

There is nothing unusual about such ups and downs in federal budgetary affairs, nor is the reduction likely to be as bad as all that when the final verdict is rendered by both houses. Traditionally, the House cuts, the Senate restores, and the two split the difference.

However, what is noteworthy about this fiscal minuet is the instantaneous counterattack that the House subcommittee action evoked from some of the higher-education organizations that are based in Washington to monitor government activities. As the federal involvement in higher education has increased, these organizations have learned their way around Congress and the bureaucracy, and they have indeed become skillful in looking after the interests of their constituent members.

The action by the House subcommittee was taken in a closed session, and was not followed by any public announcement. This is a matter of protocol, since the final version must be approved by the full Appropriations Committee, which is to take up the subcommittee recommendations this week. Nevertheless, Capitol Hill is extremely porous, and within a few days it was all over

Washington that NSF's plan for increased spending on basic research was in difficulty.

On May 5, a letter protesting the subcommittee's action was sent to House Appropriations Chairman George H. Mahon (D-Texas) by the heads of the American Council on Education, the Association of American Universities, and the National Association of State Universities and Land Grant Colleges. Copies were also sent to all members of the Appropriations Committee. The letter, in brief, predicted harm from the cuts and stated the importance of keeping the President's budget intact. Routine stuff which the Appropriations Committee receives by the sackload.

More to the point was a letter dated May 7 that Charles V. Kidd, executive secretary of the Association of American Universities, sent to the heads of the 48 universities — all major research institutions — that make up the AAU. Focusing on organizing a strong restoration effort in the Senate, the letter was accompanied by a list of Senators who serve on the Appropriations Committee, the universities in their states that receive research funds from NSF, and the amounts. Kidd, an alumnus of the old White House science office, wrote that "it would be most helpful if you would contact the members of both Appropriations Com-

*(Continued on Page 7)*

### NUCLEAR *(Continued from Page 5)*

has suggested in several Congressional statements that the United States should shut off exports of uranium to France and Germany if those countries persist in selling sensitive technology. Since neither France nor Germany is likely to be self-sufficient in enriched uranium at least until the early 1980s, Ribicoff argues that such a prohibition would quickly bring them around to the United States' way of thinking. Kissinger has ruled out such pressure, however, arguing that it would require an agreement between the United States and the Soviet Union (the only other exporter of enriched uranium) against NATO allies, which would not be a very sensible foreign policy situation. A State Department source also described the suggestion to SGR as "insane."

Similar suggestions that the United States should use its virtual monopoly of the fuel market to persuade India to accept strict safeguards are also being raised. NRC is now considering an application for a license to export some 40,000 pounds of enriched uranium to fuel the Tarapur reactor near Bombay, and it has agreed to hold public hearings on the matter on June 2. Essentially, three groups—the Natural Resources Defense Council, the Sierra Club, and the Union of Concerned

Scientists—are arguing that India should be required to agree to stricter safeguards on its nuclear facilities before the export license is granted.

The chief problem in all of this is that, as previous attempts to control international trade in technological goods have clearly demonstrated, commercial incentives usually prove too strong to deter by a loose international understanding. Without a strong common understanding and a binding agreement at the suppliers conference, export controls probably will not be very durable.

Moreover, a flat prohibition on the sale of enrichment or reprocessing plants is unlikely to deter a determined nuclear weapons aspirant. Reprocessing technology is not all that difficult to produce, as India demonstrated in 1974 by building an explosive with plutonium separated in its own plant.

Finally, it should be noted that American attempts to prevent proliferation have a somewhat hollow ring when the Administration is willing to sell reactors to countries such as Egypt, Israel and South Africa, (negotiations over the terms of the Israeli and Egyptian deals are still not complete), and when the United States and other nations refuse to place any real restraint on their own weapons development. —CN



## Comment: Is That Big NSF Prize a Good Idea?

It is late and churlish to raise questions about a scientific prize when the award has already been made and the recipient is eminently deserving. But we'll do it anyway.

We refer in this case to the National Science Foundation's proudly proclaimed new superprize, the Alan T. Waterman Award, which carries with it the customary medal, plus a highly uncustodial research grant that can run up to three years and up to \$150,000. The winner, announced last month, is a 27-year-old professor of mathematics at Princeton University, Charles L. Fefferman. At the time of his appointment there, in 1974, he was the youngest professor in Princeton's history, and before that he was the youngest professor ever appointed at the University of Chicago.

Fefferman is obviously a superstar of mathematics and meets the Congressionally prescribed criteria for the prize, which include youthfulness—interpreted as under age 35—outstanding past performances and great promise. Clearly, a meritorious choice on the part of the awards committee and the final selection body, the National Science Board, which is NSF's top policymaking group.

The Board thought up the prize as a means of

honoring Waterman on the 25th anniversary of NSF's founding, and Congress went along with the formulation of a medal and a research grant for a young researcher as a suitable memorial.

The question that we raise concerns NSF's sense of priorities at a time when its leadership routinely complains that funds are in short supply for young researchers to launch their careers, and that, as a result a lot of potential scientific talent may be going to waste.

Fefferman, who is laden with honors, will no doubt find \$150,000 in research funds a welcome arrival, but if the peer review system works as well as NSF's elders regularly claim, it is a reasonable assumption that he would get along quite well in the absence of the Alan T. Waterman Award.

Meanwhile, that \$150,000, parcelled into awards of a few thousand dollars each, could mean a great deal to a dozen or so freshly graduated researchers who want to get started on research careers.

The Board, however, opted for the notion that bigger is better, which, as we recall, wasn't the way that Alan T. Waterman viewed the role of the National Science Foundation. —DSG

### NSF (Continued from Page 6)

mittees and urge their support of the President's budget request: that is, that the total provided for NSF research project support be increased from \$554 million recommended by the House Subcommittee to \$610.6 requested by the President."

Two weeks later, a letter from Kidd to the AAU presidents and the AAU's Council on Federal Relations — which consists of a representative from each member institution — reported that Senator Charles Mathias (R-Md.) would lead the fight to undo the House cuts.

"Widespread support by heads of AAU universities for the Mathias initiative is essential because he needs ample proof that the major research universities consider this to be a serious matter. Letters thanking Senator Mathias and supporting his effort should be sent as soon as possible because the Subcommittee leadership will meet to consider preliminary appropriations recommendations during the next couple of weeks.

"Letters to other Subcommittee members urging their support of Senator Mathias's efforts are also needed. In addition you may want to ask your state's senators to write to (Appropriations Subcommittee) Chairman Proxmire (D-Wisc.) and Senator Mathias in support of

the President's NSF budget request. The central theme of your letters should be that basic research is gravely threatened and the full amount requested by the President . . . is urgently needed."

Accompanying this letter was a list of the names and office addresses of the members of the Senate Committee on Appropriations.

The likely outcome of this episode is that the House Appropriations Committee will endorse the report of its subcommittee and that the full House, probably late this month, will rubberstamp the Committee's decision.

The Senate, in response to its own inclinations and the mail campaign whipped up by the educational organizations, will make a pitch for putting back the money. Just how strong a pitch is not certain, since Proxmire is centrally situated as chairman of the subcommittee that handles NSF's money, and he and NSF have lately been at odds. Proxmire is strongminded and likes to project an image of frugality, but he is not immune to pressure from his colleagues. And that's where the agitation may play a role. Enough cries of distress from university presidents could create sentiment for a strong stand against the House position. After all, not much money is involved, and university presidents can be useful friends for a politician. —DSG

## U. of Michigan Sets Stringent DNA Controls

The process of setting controls on research involving recombinant DNA is beginning to move from the federal government to the universities where the research will actually take place. First off the mark with a set of guidelines governing its own research is the University of Michigan, which has formally adopted controls more stringent than those soon to be published by NIH.

The Michigan guidelines, drafted by a committee of 11 faculty members, were approved by the university's board of regents May 21. Essentially, they would allow most recombinant DNA work to go ahead at Michigan, as soon as the NIH guidelines are published.

They would, however, bar some of the more hazardous experiments allowed by the NIH guidelines, and they specify that recombinant DNA studies at Michigan, with rare exceptions, should be especially enfeebled strains of micro-organisms unlikely to survive outside an artificial laboratory environment. That condition will make the controls considerably stricter than the NIH guidelines, which require use of enfeebled strains in only certain types of potentially hazardous experiments (SGR Vol. V, No. 22).

Several other universities are also discussing

whether or not to adopt their own controls on recombinant DNA research, and what procedures should be established to implement and enforce the NIH guidelines, which are now expected to be published toward the end of June. Those deliberations will be especially important since it is at the institutional level that peer pressures and more formal mechanisms will work to enforce controls on the research.

The Michigan guidelines were adopted after considerable debate and some dissension among faculty members. The committee which produced the recommendations also carried a dissenting report from one of its members, Shaw Livermore, a history professor. Livermore stated that since the research involves a "capability to alter life in a fundamental way," and there is "no more elemental capability, even including the manipulation of nuclear forces," the University of Michigan should not encourage it.

The majority of the committee, which was chaired by Alvin Zander, associate vice-president for research, argued, however, that the research "should, in principle, go forward as long as it is submitted to appropriate controls." It reached that conclusion, it says, "With some uneasiness" because of the possible risks associated with the research.

Science & Government Report  
Northwest Station  
Box 6226A  
Washington, D.C. 20015

Second class postage paid  
at Washington, D.C.

-00006 99/99  
XEROX UNIV MICROFILMS  
300 N ZEEB RD  
ANN ARBOR MI 48106



